



Mark W Feinberg, MD

Dr. Mark W. Feinberg's research interests involve the identification of microRNAs and transcription factors governing cellular differentiation and activation focusing on cell types that participate in the development of vascular disease states (monocytes/macrophages, T cells, smooth muscle cells, endothelial cells, and endothelial progenitor cells). Our research interests broadly aim to identify and target: 1) anti-inflammatory signaling mediators in the development of atherosclerosis; and 2) angiogenic mediators involved in ischemic heart disease.

Our studies involve a number of cell types implicated in promoting vascular inflammation and impairing blood vessel growth, a process that may lead to heart attack, stroke, or peripheral artery disease. To date, we have identified: 1) specific transcription factors called Kruppel-like transcription factors (KLFs) (and 'lead' small molecule compounds targeting these factors); and 2) specific microRNAs (small non-coding RNAs that reduce target gene expression) and have examined their effects on mouse models of vascular inflammation, atherosclerosis, and heart attack, in an effort to provide promising therapeutic strategies to ameliorate cardiovascular disease. These studies may allow for novel therapeutic strategies for treatment of inflammatory states such as atherosclerosis.